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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,995	09/18/2000	H. Kenneth Staffin	2453-80A	4548

7590 10/16/2002

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EXAMINER

DOROSHENK, ALEXA A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 10/16/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

TC-4

Office Action Summary	Application No. 09/663,995	Applicant(s) STAFFIN ET AL.	
	Examiner Alexa A. Doroshenk <i>AD</i>	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2 & 3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite wherein the fuel is a liquid while depending on claims 4 and 5, respectively, wherein the fuel is recited as being gaseous in nature. How can the fuel be both?

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 6 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Lionetti et al. (4,443,551).

With respect to claim 1, Lionetti et al. discloses a distributor in a fluid bed reactor comprising a gas phase piping array (10, 11) discharging into a fluid bed of solids (col. 1, lines 32-49) through a plurality of tuyeres (13, 14) coupled to and mounted beneath the piping array (fig. 1).

With respect to claim 2, Lionetti et al. further disclose wherein discharge is through bottom of the piping array (see fig. 1, 4 and 5).

With respect to claims 4, 6 and 8-10, no further structural limitations are claimed and the operational conditions set forth in the claim are inherent in the design of the apparatus of Lionetti et al. since the reference has all of the same structural elements as those claimed by the instant application.

Additionally, with respect to claims 4 and 6, the examiner provides Daman (4,336,769) as evidence that having combusted fuel fed through a distributor (col. 4, lines 43-48) into a fluidized bed is possible in the structure of Lionetti et al. and that the fuel is a liquid (col. 3, lines 65-68).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 5, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lionetti et al. (4,443,551), as applied to claims 1 and 2 above, and further in view of Robinson et al. (3,763,830).

With respect to claim 3, Lionetti et al. discloses all of the structure as described above but are silent as to providing a heat exchanger in a feed line to the distributor.

Robinson et al. discloses a fluidized bed apparatus where distribution is required in the fluidized bed, such as the apparatus of Lionetti et al. Robinson et al. discloses

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wherein a heat exchanger feed line (38) is located above the distribution ports (33, 34, 35) and submerged in the fluidized bed (30) in order to control operating temperature (col. 7, lines 39-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the heat exchange teaching of Robinson et al. in the apparatus of Lionetti et al. in order to provide greater control of temperature and operation of the apparatus.

With respect to claims 5, 7 and 11, no further structural limitations are claimed and the operational conditions set forth in the claim are inherent in the design of the apparatus of Lionetti et al. since the reference has all of the same structural elements as those claimed by the instant application.

Additionally, with respect to claims 5 and 7, the examiner provides Daman (4,336,769) as evidence that having combusted fuel fed through a distributor (col. 4, lines 43-48) into a fluidized bed is possible in the structure of Lionetti et al. and that the fuel is a liquid (col. 3, lines 65-68).

Conclusion

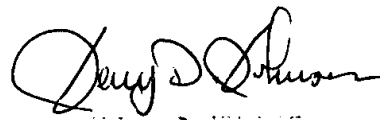
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Daman (4,336,769) was cited in order to establish inherency in the operational capabilities of structural elements.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa A. Doroshenk whose telephone number is 703-305-0074. The examiner can normally be reached on Monday - Thursday from 8:30 AM - 7:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode can be reached on 703-308-4311. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



David D. Johnson
Examiner
Art Unit 1764
October 10, 2002

AAD

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October 10, 2002